



A.D. 1872, 30th *APRIL*. N° 1290.

SPECIFICATION

OF

HENRI ADRIEN BONNEVILLE.

MEDICAL INJECTING OR IRRIGATING
APPARATUS.

LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

25, SOUTHAMPTON STREET, HOLBORN.



A.D. 1872, 30th APRIL. N° 1290.

Medical Injecting or Irrigating Apparatus.

LETTERS PATENT to Henri Adrien Bonneville, of the British and Foreign Patent Offices, 18, Rue de la Chaussée d'Antin, Paris, France, and 6, Piccadilly, in the County of Middlesex, Patent Agent, for the Invention of "**A NEW AND IMPROVED MEDICAL INJECTING OR IRRIGATING APPARATUS.**"—A communication from Adolphe Gache, residing at Neuilly, in France, Civil Engineer.

Sealed the 25th October 1872, and dated the 30th April 1872.

PROVISIONAL SPECIFICATION left by the said Henri Adrien Bonneville at the Office of the Commissioners of Patents, with his Petition, on the 30th April 1872.

I, HENRI ADRIEN BONNEVILLE, of the British and Foreign Patent
5 Offices, 18, Rue de la Chaussée d'Antin, Paris, France, and 6, Piccadilly,
in the County of Middlesex, Patent Agent, do hereby declare the nature
of the said Invention for "**A NEW AND IMPROVED MEDICAL INJECTING OR**

Bonneville's Improved Medical Injecting or Irrigating Apparatus.

IRRIGATING APPARATUS," communicated to me by Adolphe Gache, a person residing at Neuilly, in France, Civil Engineer, to be as follows :—

This Invention communicated to me relates to a new and improved medical injecting or irrigating apparatus without springs or piston called neoclyse, by means of and from which liquids are forced out by the 5 action of compressed air.

This apparatus consists of a vessel of any required shape, but in preference cylindrical, and made with any suitable material, but in preference with glass, which is filled with the liquid to be injected and employed for irrigation, and of which the top is terminated by a nozzle 10 provided with tapped metallic collar, in which a metallic plug is screwed. This tubular shaped plug is provided with two valves made of india-rubber or any suitable flexible material; by one of these valves placed at the top of this plug opening in the atmosphere to admit the entrance of the outer air whilst the other valve placed at the lower inner part of 15 tubular plug opens to admit the passage of the air forced in the vessel. On the top of this plug a hollow india-rubber ball is fastened by means of a collar or other contrivance. By alternately pressing and relaxing this hollow ball by hand the air is alternately drawn through the upper valve from the atmosphere and forced through the lower valve into the 20 vessel until a sufficient pressure is obtained on the liquid contained in it, and the liquid so compressed is driven out through a discharge pipe connected with a tap adjusted to the lower part of the vessel by a slotted bayonet joint (raccord à bayonnette).

SPECIFICATION in pursuance of the conditions of the Letters Patent, 25 filed by the said Henri Adrien Bonneville in the Great Seal Patent Office on the 25th October 1872.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, HENRI ADRIEN BONNEVILLE, of the British and Foreign Patent Offices, 18, Rue de la Chaussée d'Antin, Paris, France, and 6, Piccadilly, in the 30 County of Middlesex, Patent Agent, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Thirtieth of April, in the year of

Bonneville's Improved Medical Injecting or Irrigating Apparatus.

our Lord One thousand eight hundred and seventy-two, in thirty-sixth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Henri Henri Adrien Bonneville, Her special licence that I, the said Henri Adrien Bonneville, my executors, administrators, and assigns, or such others as I, the said Henri Adrien Bonneville, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for
10 “A NEW AND IMPROVED MEDICAL INJECTING OR IRRIGATING APPARATUS,” communicated to me by Adolphe Gache, a person residing at Neuilly, in France, Civil Engineer, upon the condition, amongst others, that I, the said Henri Adrien Bonneville, my executors or administrators, by an
15 instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

20 **NOW KNOW YE**, that I, the said Henri Adrien Bonneville, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This Invention communicated to me relates a new and improved
25 medical injecting or irrigating apparatus without springs or piston called “neoclyse,” by means of and from which liquids are forced out by the action of compressed air.

This apparatus consist of a vessel of any required shape, but in preference cylindrical, and made with any suitable material, but in
30 preference with glass, which is filled with the liquid to be injected or used for the purpose of irrigation, and of which the top is terminated by a nozzle provided with a tapped metallic collar, in which a metallic plug is screwed. This tubular shaped plug is provided with two valves made of india-rubber or any suitable flexible material; by one of these valves
35 placed at the top of this plug opening in the atmosphere to admit the entrance of the outer air, whilst the other valve placed at the lower inner part of tubular plug opens to admit the passage of the air forced in the

Bonneville's Improved Medical Injecting or Irrigating Apparatus.

vessel. On the top of this plug a hollow india-rubber ball is fastened by means of a collar or other contrivance. By alternately pressing and relaxing this hollow ball by hand, the air is alternately drawn through the upper valve from the atmosphere and forced through the lower valve into the vessel until a sufficient pressure is obtained on the liquid 5 contained in it, and the liquid so compressed is driven out through a discharge pipe connected with a tap adjusted to the lower part of the vessel by a slotted bayonet joint (raccord a bayonnette).

Having thus briefly described the said Invention, I will proceed to explain the same more particularly, reference being had to the annexed 10 Drawings, in which Fig. I. is an elevation of the apparatus, and Fig. II. a central section of the arrangement for closing the orifice of the said apparatus.

A is the vessel containing the liquid; B, the metal collar, for which tin is used in preference; C, the tube which closes the orifice of the 15 vessel; D, an india-rubber washer to make the joint air-tight; E, the sucking valve; F, the forcing or stop valve. The valve F is composed of a washer of india-rubber or other suitable flexible material fixed at one edge by a screw to the flange or annular projection formed inside the lower end of the tube, and opening downwards. The valve E is com- 20 posed of a piece of india-rubber fixed inside the tube C, and covering an aperture formed in the same, as shown in the Drawing. This valve is held against the inner surface by a split ring G forced into the tube or other contrivance, and opens inwards. H is the hollow india-rubber ball fixed to the upper end of the tube; I is the collar connecting the ball 25 with the said tube; and J, the discharge pipe provided with the tap L.

Having thus described the nature of the said Invention, and the manner of carrying the same into operation, which necessarily admits of an endless variety of combinations of form and design without departing from the principles above referred to; what I claim and desire to secure 30 by Royal Letters Patent is,—

Firstly. The application of atmospheric compression to liquids in hygienic apparatus known as irrigators, injectors, and used for such purposes.

Secondly. The complete avoidance of contact between the liquid and 35 the hollow india-rubber ball used for obtaining the required compression.

Bonneville's Improved Medical Injecting or Irrigating Apparatus.

Thirdly. The general combination and arrangement of the tube and the sucking and forcing valves with the hollow india-rubber ball.

Fourthly. The arrangement of the tap and connecting joints.

5 In witness whereof, I, the said Henri Adrien Bonneville, have hereunto set my hand and seal, this Twenty-fifth day of October, in the year of our Lord One thousand eight hundred and seventy-two.

H. BONNEVILLE. (L.S.)

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1872.

FIG. 1.

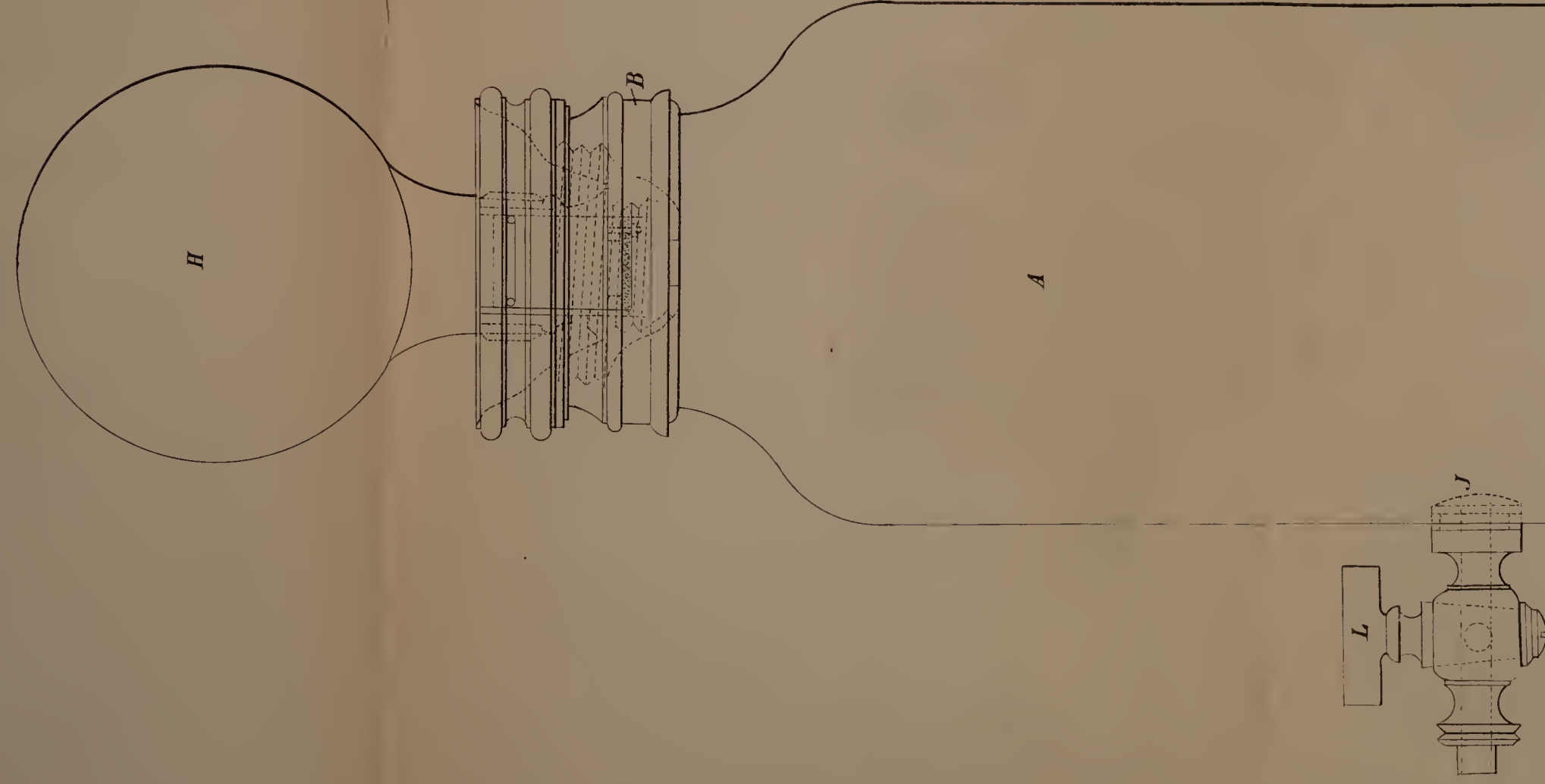


FIG. 2.

